

Researching the Geography of Social Relations

Analysis of the Spatial Distribution of Friendship Networks on Social Network Sites

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ABSTRACT

This doctoral research is examining the geography of social relations by analysing the spatial distribution of friendship networks on social network sites such as MySpace and Facebook. The major hypothesis is that even in times of the Internet distance still matters so that friendship networks on these online sites have primarily a local focus around the place of residence of the user. This research is aiming (i) to map the geography of friendship networks on social network sites and (ii) to analyse which factors shape this geography and how distance plays out in social relations. In order to facilitate this project a largely automated data collection process has been set up that gathers the information available on publicly accessible profiles of social network sites. The data is stored in a database in a flexible format that allows for analysis of profile properties and ties between profiles as well as the easy construction of social network diagrams.

Categories and Subject Descriptors

K.4 [Computers and Society]

General Terms

Measurement, Human Factors, Theory

Keywords

Social Networking Sites, Social Relations, Geography, Friendship Networks, MySpace, Facebook

1. DOCTORAL PROJECT

My doctoral research aims to analyse the geography of social relations in the Internet age that is whether distance still matters for people's social relations when these can be enacted through online media. I focus on friendship networks on social network sites (SNSs) as a proxy for people's friendship networks. SNS are a Web technology that allows people to present themselves online and to create a network of friends with whom to interact. This research is aiming (i) to map the geography of these online friendship networks and (ii) to analyse what factors shape this geography and how distance influences social relations. In order to answer these questions I collect and analyse profile information from a random sample of publicly available profiles on SNSs.

2. MOTIVATION

Present-day digital communication technologies enable communication (and hence social interaction) in a fashion that is

asynchronous in time and space. Everybody connected can communicate with everybody else on the network regardless of the physical location of each other. Whereas in the past due to the cost of communication social relations were structure very much by distance [9], the emergence of these "space-shrinking" technologies has led to proclamations of a death of distance. In the vision of some this would culminate in totally virtual communities [11] in which "*new, selective patterns of social relations substitute for territorially-bound forms of human interaction*" [2]. As such information and communication technologies have been perceived as one major enabler of the processes of globalization that put the nation state under pressure by allowing people to associate on the basis of shared interests rather than shared space.

However, many of these expectations are not exclusive to the Internet era but have indeed been frequently voiced with technologies as old as the telegraph and more recently the telephone. There is a longstanding discussion about a social transformation taking place which has been facilitated by transport and communication technologies and which sees a decline in (spatially defined) community and a substitution of place-based communities by networks of support [14]. This has been accompanied by a debate in the sociological literature whether there is a shift in social relations away from "families of fate" to "families of choice" [10] whereas people are now able to select much more actively their intimate contacts than in the past. My research therefore ties in with a tradition of social science research about how people adapt their social relations when new technologies become available. This has been examined for the telephone [5] but also for the Internet [12] with the predominant finding that new technologies tend to be used in ways that enforce rather than radically alters behaviour.

Finally, what also makes this a worthwhile area of exploration is the huge popularity of SNSs especially among young people (recent PEW Research [6] has shown that about half of the 12-17 year old Americans have an online profile on some SNS).

3. RESEARCH OBJECTIVE

The major hypothesis of my thesis is that friendship networks on SNSs - despite the technical possibility of equally connecting everybody on a global scale - are still focused mainly on the local area of the participating individual. While this hypothesis is informed by survey research that indicates that people tend to socialize online with people they know already offline [3, 6, 7] and have most interaction with local people [13], I propose a new methodology to research about the topic. It will utilize the

information available on people's profiles on SNSs and therefore crucially rely on people's behaviour online instead of self-reported data which has a number of known problems in relation to examine social networks [8]. Researchers have shown that there is a very strong connection between the friendship networks enacted through SNS and offline social relations [1, 4]. Therefore this research argues that online friendship networks can be used as a proxy for people's social networks.

This research is neither technology deterministic nor does it argue that technology does not matter. It clearly assumes that the technology plays an important role as an enabler of social relations but it focuses on people's use of the technology rather than assuming a certain effect. This research aims to place the emphasis on the user and the strategic choices that they make. In this way it borrows from Fischer [5] and his analysis of the impact of the telephone through the observation of how it has been used.

After mapping the geography of social relations online, my research will go on to analyse how different variables may impact on the spatial distribution of friendship networks. For example, how do SNSs for sociability (e.g. MySpace and Facebook) differ from SNSs for professional networks (such as LinkedIn and Xing)? What is the interaction with socio-demographic variables such as gender, education, geographic mobility and country of origin? What is more, how does geography impact on the way people interact online: Do distant friends communicate more or less with each other? Do friends from nearby share more or less characteristics with each other?

The data collected from the profiles will be supplemented with data from interviews in order to qualify some of the observations. This will help to place the online networks observed into the context of the overall social networks of the individuals.

4. E-SOCIAL SCIENCE CONTEXT

SNSs are a huge source of data about how people chose to present themselves and to interact with others. This kind of information has been of interest to Social Scientist for a long time but data collection has been difficult and expensive. SNSs now make a lot of this information publicly accessible and it will be one of the challenges of an e-Social Science to collect and analyse this information that is often presented in a non-standardized way. A substantial part of my doctoral research is therefore to establish suitable methodologies to collect data from SNS and store them in a useful way that enables different kinds of analyses.

5. WORK IN PROGRESS

I am currently in the process of collecting information from publicly available MySpace profiles. I have set up scripts to largely automate this process. The retrieved data is stored in a structured way in a database that makes the information on the profile as well as the ties between individual's profiles accessible for different kinds of analysis including social network analysis. The results have already been successfully presented in a paper

for a course that the Oxford Internet Institute has been jointly organising with Professor Manuel Castells and the University of Catalonia's Internet Interdisciplinary Institute. Furthermore, I will present some of the findings in September this year in York at the "Towards a Social Science of Web 2.0" conference.

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